Age, Ethnic and Racial Disparity in Salmonella serotype Enteritidis (SE): FoodNet, 1998-2000

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Background: Salmonella serotype Enteritidis (SE) emerged as the most common Salmonella serotype in the United States in the mid-1990s, reaching a peak in 1995. SE infections are most often associated with consumption of raw or undercooked shell eggs. The objective of this analysis is to describe the variation in SE incidence rates among the CDC's Foodborne Disease Active Surveillance Network (FoodNet) sites by state, age group, race, and ethnicity to determine where prevention efforts might be targeted.

Methods: Since 1996, FoodNet sites have been conducting active laboratory-based surveillance at clinical laboratories for selected foodborne pathogens including *Salmonella*. Clinical laboratories forward Salmonella isolates to public health laboratories for serotyping. In 2000, FoodNet sites included Connecticut, Georgia, Minnesota, and Oregon, and selected counties in California, Tennessee, Maryland, and New York (29.5 million); 11% of the U.S. population.

Results: In 1998-2000, 11,657 *Salmonella* cases were ascertained, of which 12% (1425) were SE. *Enteriditis* was the 2nd most common serotype. SE incidence rates were 1.9 per 100,000 in 1998, 1.7 in 1999 and 2.0 in 2000. Average annual incidence was highest in Maryland (4.8/100,000), followed by Connecticut (3.7) and was lowest in Georgia (0.9). The average annual age-specific incidence of SE was highest among children <5 years of age (4.2/100,000) and 5-9 years of age (2.1/100,000). There was no difference in age-specific incidence rates by gender. Of the 939 (66%) SE cases over 3 years of age whose race/ethnicity was known, average annual incidence was highest among Blacks (2.0/100,000) followed by Hispanics (1.2), and Whites (1.1). Incidence among Blacks was highest in Maryland (3-year average 7.4/100,000).

Conclusions: Incidence of SE varied by site with the highest incidence in Maryland and Connecticut. Children under 5 years of age had an incidence of SE twice as high as other age groups. The incidence of SE in Blacks was higher than in other racial or ethnic groups. These differences in SE incidence warrant further study to identify risk factors for infection that may explain these variations. Surveillance data are useful for identification of groups for targeted educational programs to reduce the incidence of SE infection.

Suggested citation:

Marcus R, Rabatsky-Ehr T, Lay J, Mohle-Boetani J, Farley M, Medus C, Shiferaw B, Hawkins M, Zansky S, Jones T, Hadler J, and the EIP FoodNet Working Group. Age, Ethnic and Racial Disparity in Salmonella serotype Enteritidis (SE): FoodNet, 1998-2000. International Conference on Emerging Infectious Diseases. Atlanta, GA, March 2002.